

SUPPLEMENTARY TABLE 1. Flavor types used among middle and high school students who reported current (past 30-day) use of flavored tobacco products, by product — National Youth Tobacco Survey, United States, 2021

	Tobacco product*						
	E-cigarettes	Cigarettes [†]	Cigars	Smokeless tobacco [‡]	Hookahs	Heated Tobacco Products	Nicotine Pouches
Current flavored tobacco product use	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Flavor types[†]							
Fruit	71.6 (67.8-75.1)	**	65.0 (55.2-73.6)	25.9 (18.0-35.7)	73.5 (56.9-85.4)	46.4 (28.9-64.8)	— ^{††}
Candy/Deserts/Sweets	34.1 (30.3-38.2)	**	43.6 (33.3-54.5)	14.8 (8.5-24.6)	40.1 (24.5-58.0)	35.2 (21.7-51.6)	—
Mint	30.2 (26.9-33.7)	**	15.5 (9.7-23.9)	69.2 (57.3-79.1)	31.4 (20.4-45.1)	—	53.5 (39.6-66.9)
Menthol	28.8 (23.6-34.8)	38.8 (32.3-45.7)	21.0 (13.6-31.0)	38.2 (27.6-50.1)	17.0 (9.5-28.5)	26.5 (14.7-42.9)	50.2 (35.1-65.4)
Alcoholic drinks	6.0 (4.3-8.2)	**	28.6 (20.5-38.4)	10.7 (6.0-18.6)	—	—	—
Chocolate	2.9 (1.9-4.5)	**	23.5 (14.3-36.1)	16.9 (10.1-26.8)	—	—	—
Clove/Spice	2.1 (1.3-3.3)	**	10.9 (6.0-19.2)	—	—	—	—
Some other flavor	10.4 (8.2-13.2)	**	24.0 (13.5-38.9)	23.0 (15.1-33.3)	—	—	—

Abbreviation: e-cigarettes = electronic cigarettes.

* Estimates of flavor use for pipe tobacco users were statistically unreliable and are omitted from this table.

[†] Flavored cigarette use refers to use of menthol cigarettes. Thus, other flavor types for cigarettes were not applicable. Current cigarette smokers were categorized as flavored (menthol) cigarette smokers: if they responded “yes” to the question, “Menthol cigarettes are cigarettes that taste like mint. During the past 30 days, were the cigarettes that you usually smoked menthol?”; or if they indicated “Kool” or “Newport” as a brand they usually smoked in the past 30 days. Usual brand was determined based on responses to two questions: 1) “During the past 30 days, what brands of cigarettes did you smoke? (Select one or more)” and 2) “During the past 30 days, what brand of cigarettes did you usually smoke? (Choose only one answer).” If “Kool” or “Newport” was the only brand selected for the first question, or if multiple brands were selected in the first question and “Kool” or “Newport” was selected for the second question, “Kool” or “Newport” was considered the respondent’s usual brand. Those who selected “some other brand(s) not listed here” could provide a write-in response; write-in responses corresponding to an original response option were recoded. Those who reported “no” or “not sure” to the menthol question or those who did not report “Newport” or “Kool” as their usual brand were categorized as nonmenthol smokers; all other past 30-day cigarette smokers who did not provide any valid response were assigned as missing menthol smoking status.

[‡] Flavor types were assessed separately among flavored chewing tobacco, snuff, or dip; snus; and dissolvable tobacco product users. Flavor types were then assessed as a composite among current users of chewing tobacco, snuff, dip, snus, or dissolvable tobacco products.

^{††} For each respective tobacco product excluding cigarettes (e-cigarettes, cigars [cigars, cigarillos, or little cigars], smokeless tobacco [chewing tobacco, snuff, or dip; snus; dissolvable tobacco products], hookahs, pipe tobacco, heated tobacco products, nicotine pouches), current (past 30-day) users were asked, “Were any of the [tobacco product] that you used in the past 30 days flavored to taste like menthol, mint, clove or spice, alcohol (wine, cognac), candy, fruit, chocolate, or any other flavor?” (response options were “yes,” “no,” or “don’t know”). Those who responded yes were then asked, “What flavors were the [tobacco product] that you have used in the past 30 days? (Select one or more).” Response options were “menthol,” “mint,” “clove or spice,” “alcoholic drinks (such as wine, cognac, margarita, or other cocktails),” “candy, desserts, or other sweets,” “fruit,” “chocolate,” and “some other flavor not listed here” (write-in responses). Write-in responses were examined and re-coded to a pre-specified response option where applicable.

** Flavored cigarette use refers to use of menthol cigarettes. Thus, other flavor types for cigarettes were not applicable.

^{††} Data were statistically unreliable because of unweighted denominator <50 or a relative standard error >30%.

SUPPLEMENTARY TABLE 2. E-cigarette device types reported among middle and high school students who reported current (past 30-day) use* of e-cigarettes, overall and by school level, sex, and race and ethnicity — National Youth Tobacco Survey, United States, 2021

E-cigarette device type [†]	Total		Sex		Race and Ethnicity			
			Male	Female	White, non-Hispanic	Black, non-Hispanic	Hispanic [‡]	Other, non-Hispanic
	% (95% CI)	Estimated no. [§]	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Overall								
Disposable e-cigarette	53.7 (48.7-58.6)	1,080,000	49.6 (42.4-56.8)	58.2 (52.7-63.5)	55.1 (48.2-61.9)	52.3 (42.0-62.4)	47.9 (40.7-55.3)	63.2 (42.7-79.9)
Prefilled or refillable pod or cartridge	28.7 (25.1-32.6)	570,000	31.1 (26.1-36.6)	26.1 (21.5-31.3)	31.0 (26.2-36.3)	24.8 (15.5-37.1)	24.2 (18.7-30.8)	—**
Tank or Mod system	9.0 (6.8-11.8)	180,000	9.9 (7.2-13.6)	7.9 (5.5-11.3)	7.2 (4.8-10.6)	12.3 (7.1-20.3)	13.6 (8.5-20.9)	—
I don't know	8.6 (6.7-11.0)	170,000	9.4 (6.8-12.9)	7.8 (5.6-10.7)	6.7 (4.6-9.7)	—	14.3 (9.8-20.2)	—
High school (grades 9-12)								
Disposable e-cigarette	55.8 (50.8-60.7)	940,000	51.2 (43.4-58.9)	60.7 (55.1-66.1)	55.8 (48.7-62.7)	55.7 (43.8-66.9)	53.4 (44.5-62.1)	—
Prefilled or refillable pod or cartridge	28.9 (24.9-33.3)	480,000	31.8 (26.2-37.9)	25.6 (20.7-31.1)	31.0 (25.8-36.8)	26.2 (14.7-42.3)	24.0 (17.9-31.3)	—
Tank or Mod system	7.5 (5.5-10.3)	120,000	8.8 (5.9-13.0)	6.3 (4.0-9.8)	6.7 (4.4-10.0)	—	9.3 (5.3-16.0)	—
I don't know	7.8 (5.7-10.4)	130,000	8.2 (5.5-12.1)	7.4 (5.1-10.6)	6.5 (4.2-9.8)	—	13.2 (8.1-21.0)	—
Middle school (grades 6-8)								
Disposable e-cigarette	43.8 (34.0-54.1)	130,000	40.7 (29.0-53.5)	47.2 (35.6-59.2)	51.0 (40.1-61.8)	—	35.8 (22.7-51.5)	—
Prefilled or refillable pod or cartridge	27.8 (22.0-34.4)	80,000	27.1 (18.0-38.7)	28.9 (21.1-38.3)	31.1 (23.6-39.7)	—	24.8 (15.8-36.6)	—
Tank or Mod system	15.6 (9.7-24.1)	40,000	—	—	—	—	23.8 (13.0-39.7)	—
I don't know	12.8 (8.0-19.9)	40,000	15.9 (9.5-25.2)	9.9 (5.5-17.1)	8.8 (5.2-14.4)	—	—	—

Abbreviation: e-cigarettes = electronic cigarettes.

* Past 30-day use of e-cigarettes was determined by asking, "During the past 30 days, on how many days did you use e-cigarettes?" Those indicating use on ≥1 day of the past 30 days were considered current users of e-cigarettes.

† Device type among current e-cigarette users was assessed by the question, "Which of the following best describes the type of e-cigarette you have used in the past 30 days? If you have used more than one type, please think about the one you use most often. Response options included the following: "a disposable e-cigarette (for example, Puff Bar or STIG)," "an

e-cigarette that uses pre-filled or refillable pods or cartridges (for example, JUUL, SMOK, or Suorin),” “an e-cigarette with a tank that you refill with liquids (including mod systems that can be customized by the user),” and “I don’t know the type.”

[§] Estimated weighted total numbers of users were rounded down to the nearest 10,000 persons. Overall estimates might not directly total to sums of corresponding subgroup estimates because of rounding or inclusion of students who did not self-report sex, race and ethnicity, or grade level.

[†] Hispanic persons could be of any race.

^{**} Data were statistically unreliable because of unweighted denominator <50 or a relative standard error >30%

SUPPLEMENTARY TABLE 3. Harm perceptions of intermittent use* of select tobacco products among middle and high school students, overall and by school level — National Youth Tobacco Survey, United States, 2021

	No harm	Little harm	Some harm	A lot of harm
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Overall				
E-cigarettes	2.6 (2.2-3.0)	14.0 (13.0-15.0)	41.6 (40.5-42.6)	41.8 (40.5-43.2)
Cigarettes	2.0 (1.8-2.3)	7.6 (7.0-8.2)	43.4 (42.2-44.7)	47.0 (45.7-48.3)
Cigars	2.4 (2.0-2.8)	11.0 (10.0-12.0)	45.2 (44.2-46.2)	41.5 (40.1-42.9)
Smokeless tobacco	2.3 (2.0-2.7)	10.2 (9.3-11.2)	39.2 (38.1-40.2)	48.3 (46.8-49.8)
Hookahs	2.5 (2.1-2.9)	12.9 (12.1-13.8)	42.6 (41.3-43.8)	42.0 (40.6-43.5)
High school (grades 9-12)				
E-cigarettes	2.7 (2.3-3.2)	15.2 (13.9-16.6)	43.0 (41.7-44.3)	39.0 (37.6-40.5)
Cigarettes	2.3 (1.9-2.7)	8.5 (7.7-9.4)	44.2 (42.6-45.7)	45.1 (43.4-46.7)
Cigars	2.7 (2.3-3.3)	12.4 (11.0-14.0)	45.6 (44.2-47.0)	39.3 (37.3-41.3)
Smokeless tobacco	2.4 (2.1-2.9)	10.7 (9.7-11.8)	39.2 (37.7-40.7)	47.6 (45.8-49.5)
Hookahs	2.7 (2.3-3.3)	15.3 (14.2-16.5)	43.8 (42.2-45.4)	38.1 (36.4-39.9)
Middle school (grades 6-8)				
E-cigarettes	2.4 (1.9-3.0)	12.4 (11.2-13.7)	39.7 (37.9-41.6)	45.5 (43.2-47.7)
Cigarettes	1.6 (1.2-2.2)	6.4 (5.7-7.2)	42.5 (40.5-44.5)	49.4 (47.5-51.3)
Cigars	1.8 (1.4-2.4)	9.2 (8.3-10.1)	44.8 (43.2-46.3)	44.2 (42.4-46.1)
Smokeless tobacco	2.2 (1.6-2.9)	9.6 (8.5-10.9)	39.1 (37.7-40.5)	49.1 (47.2-51.0)
Hookahs	2.0 (1.5-2.7)	9.9 (8.9-11.0)	41.0 (39.6-42.4)	47.1 (45.4-48.7)

Abbreviation: e-cigarettes = electronic cigarettes.

* Assessed by the questions, "How much do you think people harm themselves when they (use e-cigarettes; smoke cigarettes; smoke cigars, cigarillos, or little cigars; use smokeless tobacco [chewing tobacco, snuff, dip, snus, or dissolvable tobacco products]; or smoke tobacco in a hookah or water pipe) some days but not every day?" Response options included "no harm," "little harm," "some harm," and "a lot of harm" for each of the five tobacco products assessed. Harm perceptions of intermittent use of other tobacco products were not assessed in the 2021 National Youth Tobacco Survey.